

Given the tree to the right, identify the ff.:

6. Children of node 16. **13, 6, 60**
7. Parent of node 1. **7**
8. Siblings of 23. **No sibling**
9. Ancestors of 9. **4, 12, 7, 22**
10. Descendants of 16 **13, 6, 60, 23, 21**
11. Leaves. **23, 6, 21, 20, 9, 1**
12. Non-leaves. **22, 16, 7, 13, 60, 12, 4**

Given the tree to the right, identify the ff.:

13. Depth of node 4. **Depth 3**
14. Degree of the tree. **Degree 2**
15. Height of the tree. **Height 4**
16. Weight of the tree. **Weight 5**
17. Is the tree a binary tree? **Yes**

Given the tree to the right, identify the ff.:

18. Removing 6, is the tree a full binary tree? **Yes**
19. Removing 6, is the tree a complete binary tree? **No**
20. Is a full binary tree complete? **No**

Given the tree to the right, identify the ff.:

21. Is a complete binary tree full? **Yes**
22. How many leaves does a complete  $n$ -ary tree of height  $h$  have?  **$n^h$  or  $n^4$**
23. What is the height of a complete  $n$ -ary tree with  $m$  leaves?  **$\log_n m$  or  $\log_n 6$**
24. What is the number of internal nodes of a complete  $n$ -ary tree of height  $h$ ?  **$(n^h - 1)/(n - 1)$  or  $(n^4 - 1)/(n - 1)$**
25. What is the total number of nodes a complete  $n$ -ary tree of height  $h$  have?  **$(2^h - 1)$  or  $(2^4 - 1) = 16$**